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10/725,526	12/03/2003	Raymond K. Orr	79115-26 /pw	3203

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EXAMINER	
RUTLAND WALLIS, MICHAEL	
ART UNIT	PAPER NUMBER
2836	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/725,526	ORR ET AL.	
	Examiner	Art Unit	
	MICHAEL RUTLAND WALLIS	2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 August 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7,9-16 and 19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,9-16 and 19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 August 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 8/25/08 have been fully considered but they are not persuasive.

Applicant first argues the claimed limitation " each of the power sources is responsive to the sensed power supply voltage for supplying a regulated current or a regulated power to the power distribution network." is not taught or suggested in the cited art. In support of the alleged absence Applicant interprets the above clause to be limited to "each of a plurality of power sources is responsive to the same sensed power supply voltage for supplying a regulated current or a regulated power to the power distribution network."

In response, Applicant's interpretation is of said clause implies limitations (i.e. the same sensed power supply voltage) not found in the claim. Applicant is directed the relevant section of the MPEP regarding claim interpretation (reproduced below in relevant part)

> MPEP 2111 [R-5] Claim Interpretation; Broadest Reasonable Interpretation
>
> During patent examination, the pending claims must be "given their broadest reasonable interpretation consistent with the specification." >The Federal Circuit's en banc decision in Phillips v. AWH Corp., 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) expressly recognized that the USPTO employs the "broadest reasonable interpretation" standard

> Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969)

Currently the claim recites “at least one voltage sensor” leaving a reasonable interpretation of more the one voltage sensor, there is nothing in the current claims to prohibit "the sensed voltage" from being sensed from more than more point in the distribution network. In other words, the claim may equally be interpreted to have voltage sensed at multiple points and regulating the output in response thereto.

Applicant secondly argues “supplying a regulated current or a regulated power to the power distribution network responsive to the sensed power supply voltage”. In support Applicant contends the regulation is not responsive to the sensed voltage and regulation provided is not that of current or power regulation.

In response, Freige states “Voltage regulation is accomplished by sensing an output voltage…" as cited in the previous action (col. 6 lines 50-55). The regulation provided by Freige is described as cited in the previous action (col. 6 lines 34-50) where for example Freige states “Power module current voltage output regulation is provided (line34)... improve[s] power supply response time and accordingly power supply regulation (line 50)” therefore while differences may be present in the type of regulation and response, the teachings present in Freige properly anticipate the claim limitations of regulation.

Applicant next argues with respect to claim 2 Applicant cites the limitation “each power supply is responsive to the same set of voltages at a plurality of points in a power distribution network." is not taught or suggested in the cited art.

In response to applicant's argument that the references fail to show certain features of applicant’s invention, it is noted that the features upon which applicant relies (i.e., each power supply is responsive to the same set of voltages at a plurality of points in a power distribution network.) are not recited in the rejected claim. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant argues with respect to claim 3 explicitly recite a form of “spatial” average over multiple sensing points.

In response, the above language is completely absent in the claims.

Applicant’s remaining arguments depend directly or indirectly from the above.

In view of the above the rejection is maintained

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 9, 15 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Freige et al. (U.S. Pat. No. 4,538,073)

With respect to claims 1, 9 and 15 Freige teaches a distributed power supply arrangement (see Fig. 4) comprising a plurality of power sources (items 10a-10n) for supplying power to a plurality of loads (monitor processor and floppy shown in Fig. 1) via a power distribution network, the power sources and the loads being connected to the power distribution network whereby the power sources are coupled to the loads via respective resistances (resistors and conductive connections shown in Fig. 2) of the power distribution network, the arrangement further comprising at least one voltage sensor (see col. 6 lines 50-60) for sensing power supply voltage at least one point in the power distribution network, wherein each of the power sources is responsive (see conduction control of transistor Q4 by voltage regulating circuitry) to the sensed power supply voltage for supplying a regulated current (see col. 6 lines 34-50) or a regulated power (col. 7 lines 5-6) to the power distribution network.

With respect to claim 2 and 19 Freige teaches a plurality of said voltage sensors (sensor circuitry associated with each supply item 10a-10n) for sensing power supply voltages at a plurality of points in the power distribution network.

With respect to claims 4 and 16 Freige teaches the power supply outputs a regulated current.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freige et al. (U.S. Pat. No. 4,538,073) in view of Hart (U.S. Pat. No. 3,909,702)

With respect to claims 3 and 10 Freige teaches each of the power sources is responsive sensed power supply voltages for supplying said regulated current or regulated power to the power distribution network. Hart teaches (see abstract, further see col. 5 lines 15-20) regulation circuitry wherein each of the power sources is responsive to an average of the sensed power supply voltages for supplying said regulated current or regulated power to the power distribution network. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Freige to sense the average current in order provide a stable output power to the loads average power requirements.

Claims 6-7 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freige et al. (U.S. Pat. No. 4,538,073) in view of Hayward et al. (U.S. Pat. No. 6,317,345)

With respect to claims 6 and 13-14 Freige teaches the device of claim 1 and 2 but does not teach the power distribution network comprises power and ground planes of a circuit card on which the loads are provided. Hayward teaches plural power circuits and ground plane circuitry. It would have been obvious to one of ordinary skill in that art

at the time of the invention modify Freige to implement the system on claim 1 on a circuit card in order to use the system in a backplane arrangement.

With respect to claims 7 Hayward teaches the plurality of power circuits are arranged on the circuit card.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freige et al. (U.S. Pat. No. 4,538,073) in further view of Johnston (U.S. Pat. No. 5,952,733) Freige teaches the power sources are arranged for supplying regulated currents with a rating scheme (col. 9 lines 25-40) rating the power requirements. Freige does not teach each source is arranged with a current of different relative weights to the power distribution network. Johnston teaches the power sources are arranged for supplying regulated outputs (see 1.5v 3.3v, 5v and 12v outputs) with different relative weights to the power distribution network. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Freige to output different currents with different weights in order to increase the efficiency of the secondary converters

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freige et al. (U.S. Pat. No. 4,538,073) in view of Hart (U.S. Pat. No. 3,909,702) in further view of Johnston (U.S. Pat. No. 5,952,733) Freige teaches the power sources are arranged for supplying regulated currents with a rating scheme (col. 9 lines 25-40) rating the power requirements. Neither Freige nor Hart teach each source is arranged with a current of different relative weights to the power distribution network. Johnston teaches the power sources are arranged for supplying regulated outputs (see 1.5v 3.3v, 5v and 12v outputs) with different relative weights to the power distribution network. It would have

been obvious to one of ordinary skill in the art at the time of the invention to further modify Freige to output different currents with different weights in order to increase the efficiency of the secondary converters.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rutland-Wallis whose telephone number is 571-272-5921. The examiner can normally be reached on Monday-Thursday 7:30AM-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MRW
/Stephen W Jackson/
Primary Examiner, Art Unit 2836